

ABSTRACT OF THE DISCLOSURE

In a digital camera, an image pickup section feeds pixel data to a signal processor that uses green pixel data as high-frequency luminance data. To generate luminance for a subject pixel that is either a red pixel or a blue pixel, the signal processor determines a direction of correlation by using the subject pixel and pixel data identical in color with the subject pixel and adjoining it in horizontal and vertical directions. The signal processor then generates, based on the subject pixel and the pixel data used for the above decision, a color complementary to green as high-frequency luminance data while attaching a flag indicative of the direction of correlation to the pixel data. Further, by comparing flag patterns, the signal processor corrects the above flag and then generates high-frequency luminance data from pixel data positioned in a direction indicated by the flag. This obviates a difference in level between nearby pixels in a direction of length.